AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application.

1.   Canceled

2.   Canceled

3.   Canceled

4.   Canceled

5.   Canceled

6.   Canceled

7.   Canceled

8.   Canceled

9. (New) Method for enhancing erosion uniformity on the sputtering surface of a magnetron

cathodic sputtering non-ferromagnetic target and, optionally, for indicating the end of use of this

target, intended to be coupled, via non-magnetic means, to a magnetron maintained fixed as

compared to this target, wherein it is possible, without modifying the physical characteristics of the

magnetron, at least one ferromagnetic piece is added by partial or complete insertion into said target

or by juxtaposition thereto according to predetermined characteristics of location, shape and size, so

as to bring about, at the entire sputtering surface, an increase of the parallelism of the magnetic

induction lines generated by the magnetron.

10. (New) Method according to claim 9, wherein the characteristics of location, shape and

size of the ferromagnetic piece are predetermined, from unmodified physical characteristics of the

magnetron, by

a) comparing the measured values and the modelled values of the total magnetic induction, i.

e. B_{total}, generated by the magnetron on the target sputtering surface and of the vertica~ component,

i.e. B_z, of said magnetic induction,

b) searching in this modelized induction the characteristics of location, shape and size of at

least one ferromagnetic piece able to bring about, at the sputtering surface, the

desired of the parallelism of the magnetic induction lines,

c) optimizing, by means of the $|B_z|/B_{total}$ parameter the selected location, shape and size.

11. (New) Method according to claim 9, wherein the characteristics of location, shape and size of the ferromagnetic piece are predetermined, from unmodified physical characteristics of the magnetron, by:

a. measuring the values of the total magnetic induction, i. e. B_{total} generated by the magnetron at the target sputtering surface and of the vertical component, i.e. B_z, of this magnetic induction,

b. calculating and modelling, by means of a software-assisted computer technique, the total magnetic induction generated by the magnetron at the target sputtering surface and of the vertical component of this magnetic induction,

c. validating the modelling by comparing the calculated values of the total magnetic induction hand and of its vertical component on the other hand with the corresponding measured values,

d. searching in this modelled induction the characteristics of location, shape and size of at least one ferromagnetic piece which, once in contact with the sputtering target, is able to bring about, at the target sputtering surface, the desired increase of the parallelism of the. magnetic induction lines,

e. optimizing, by means of the B_z/B_{total} parameter, the selected position, shape and size.

12. (New) Method according to claim 10, wherein the characteristics of location, shape and size are optimized via the selection of the magnetic induction area(s) where the value of the B_z/B_{total} parameter is as low as possible, the magnetic induction remaining sufficient in order to bring about an efficient confinement of the electrons at the target sputtering surface.

13. (New) Method according to claim 9, wherein at least one ferromagnetic piece is added by partial or complete insertion in the sputtering target.

14. (New) Method according to claim 9, wherein at least one ferromagnetic piece is added by juxtaposition on one wall of the sputtering target.

15. (New) Method according to claim 9, wherein, when the target is made of a low melting point material, at least one ferromagnetic piece is added by insertion either from the ends of .the sputtering target or from its lower face or by juxtaposition either against the walls of this target ends or against the lower face wall of this target.